



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,026	03/18/2004	Yukihiro Ichikawa	119151	5611
25944	7590	11/14/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER MENON, KRISHNAN S	
			ART UNIT 1723	PAPER NUMBER

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/803,026	ICHIKAWA, YUKIHITO
	Examiner Krishnan S. Menon	Art Unit 1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 October 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) 4-12, 21 and 22 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-3 and 23-27 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claims 1-12 and 21-27 are pending, of which claims 4-12, 21 and 22 are withdrawn, as amended 10/25/06.

Applicant must indicate status of claim 21 as 'withdrawn' in the claims list, instead of 'original'.

Information Disclosure Statement

Applicant refers to JASO M505-87 in the specification as the standard for measuring water adsorption by Automobile Engineers of Japan. However, this reference was not cited in the IDS submitted on 8/9/04. Applicant is required to submit an English translation of the relevant pages of this reference in an IDS for consideration by the PTO, and to be retained in the application file.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 23-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

No support could be found in the applicant's specification or claims as originally filed for the description of the cell structure in claim 23 captured below:

as a standard for setting conditions for carrying a catalyst component, the cell structure comprising cells separated by partition walls, the partitions walls having partition wall bodies, partition wall surfaces and pores located inside the partition wall bodies, the pores having pore spaces and pore surfaces inside the partition wall bodies, the method comprising the

While it is understood that a porous cellular material would have cells with porous walls, applicant has not disclosed the structure recited in the claim to claim it as part of applicant's invention.

Claim 24 recites "charging particulate material into the porous cell structure by pressure feeding". This is also not supported by the specification. Specification only has disclosure for pressure feeding steam and air.

Claim 24 recites "discharging the particulate material from the porous structure" and claim 25 recites "discharging step uses suction". No disclosure could be found for these limitations also.

Claims 26 and 27 recite forcibly removing excess particulate material by air shower, which also lacks supporting disclosure. (Disclosure is only for forcibly removing a liquid; not any particulate material)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Dahlgren et al (US 6,143,058).

Claims 1-3: Dahlgren teaches a method of measuring water vapor (or steam with air as in applicant's claim 3) **adsorption** on a porous cell structure (abstract) using a balance and a temperature and humidity controlled chamber – see column 12 lines 1-47. The recitation, "as a standard forcarrying a catalyst component" in the preamble of claim 1 is not a patentable limitation, since it only recites the intended use of the data obtained by the method of analysis. The process described by the reference regards the amount of water sticking to the surface of the pores, etc, of the porous body as the water adsorption of the porous body: the procedure in the reference is identical to the method disclosed by the applicant (paragraph 35 and 36 of the specification). The reference also teaches the process as "adsorption", which is a surface phenomenon, as recited in the claim, as opposed to the word **absorption** used in the claim, which is a bulk phenomenon.

The process step of "regarding an amount of particulate material ... as the water absorption..." cannot be considered as a process or manipulative step; it would be only a thought process occurring in one's mind; only an assumption. Therefore, it is not a patentable limitation.

Claim 23: the claim is for measuring water absorption on the partition wall and the pore walls; the structure of the cell is immaterial for the claim language. The

Dahlgreen teaching implies measuring the adsorption characteristics of the recited cell structure in its teaching of the adsorption measurement of the sample. Dahlgreen's measurement pertains to moisture sticking to the surface of the walls and the pore walls, as discussed above.

2. Claims 1,2 and 23-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Guile et al (US 5,716,899)

Claim language requires that only a particulate material such as a gas be used for the measurement as in claim 2. "Regarding ..." in claim 1 is not a patentable limitation, as shown above.

Guile teaches measuring adsorption of a hydrocarbon (propylene) in a honeycomb structure by passing the gas stream over the sample in a tube – see column 13 line 63 – column 14 line 20. Limitations in claims 24-25 such as pressure feeding, or discharging by suction, are implied in the reference, since passing the gas over the sample requires a driving force such as pressure or suction or both. Alternately, it would be obvious to one of ordinary skill in the art at the time of invention to provide a means for driving the gas over the sample using pressurized feed or by suction or both.

3. Claims 1-3 and 23-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chang (US 2002/0025290).

Chang teaches a method of measuring adsorption of CO₂ and water vapor (which is same as steam used by applicant) over an adsorbent – see examples 29 and 30. The CO₂ and water vapor streams are in air, the reference teaches complete adsorption and breakthrough, meaning that the excess water vapor and CO₂ are blown out by the gas stream, which is implied by, or inherent in, the reference. See the breakthrough curves. The reference teaches complete absorption at the point of breakthrough without excess water/CO₂ filling the pores. A *prima facie* case under 35 U.S.C. 102 /103 could be made if a process step is inherent: *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. “The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness.” *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also *In re Grasselli*, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983). “[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968); *In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976).

Regarding the porous cell structure, the reference teaches similar material. “Regarding …” language is not patentable as shown above. “Standard for setting conditions for catalyst component” is intended use of the result of the process.

Use of pressure feeding is taught by the reference, or implied: it would require a forced feed and/or suction to make the gases flow through the material.

Response to Arguments

Applicant's arguments filed 10/26/06 have been fully considered but they are not persuasive.

Applicant's quoting paragraphs from the specification in the argument is not commensurate in scope with the claims. The rejection is for the claims; not the specification.

Regarding the lengthy arguments about the "regarding" language, "the particles sticking to the surface", etc; "regarding" is already addressed in the rejection. The references teach "adsorption", which is inherently a surface property: the molecules of water stick to the surface in adsorption as opposed to filling the pores (bulk phenomena).

Argument that '*the surface phenomenon of Dahlgreen is likely at the surface of the partition wall of a honeycomb structure; as discussed in the background section of the specification, the prior art only considers absorption only at the surface of the partition wall, without considering the surface of the pore*' is only speculation by the attorney; there is no evidence to support that.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



11/01/06

Krishnan S Menon
Primary Examiner
Art Unit 1723